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## **Claims**

- 1. A method of diagnosing an impaired glucose tolerance condition, obesity, or a propensity thereto in a patient, said method comprising analyzing the level of PTEN expression or activity in a sample isolated from said patient, whereby an increase in said level of PTEN expression or activity relative to a control sample is an indication of an impaired glucose tolerance condition, obesity, or a propensity thereto.
- 2. A method of diagnosing longevity in a patient, said method comprising analyzing the level of PTEN expression or activity in a sample isolated from said patient, whereby a decrease in said level of PTEN expression or activity relative to a control sample is an indication of decreased longevity.
- 3. The method of claim 1 or 2, wherein said level of PTEN expression or activity is analyzed by measuring PTEN lipid phosphatase activity.
- A method of ameliorating or delaying the onset of an impaired
  glucose tolerance condition in a patient, said method comprising administering to
  said patient a therapeutically-effective amount of a compound that decreases
  PTEN expression or activity.
  - 5. A method of increasing longevity in a patient, said method comprising administering to said patient a therapeutically-effective amount of PTEN polypeptide or a compound that increases PTEN expression or activity.

6. The method of claim 4 or 5, wherein said PTEN is human PTEN.